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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/800,803	03/15/2004	Travis R. Coleman	CM06968K	1612
7590 Barbara R. Doutre Motorola, Inc. Law Department 8000 West Sunrise Boulevard Fort Lauderdale, FL 33322			EXAMINER LEE, GUNYOUNG T	
			ART UNIT 2875	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE			MAIL DATE	
3 MONTHS			02/02/2007	
			DELIVERY MODE PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/800,803

Applicant(s)

COLEMAN ET AL.

Examiner

Gunyoung T. Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03/15/2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 14-21 is/are allowed.
- 6) ☒ Claim(s) 1-2, 7-11 and 13 is/are rejected.
- 7) ☒ Claim(s) 3-6 and 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "adhesive layer" in claims 8, 14 and 18 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 2 is rejected under 35 U.S.C. 102(b) as being anticipated by Lundell et al. (US 5,401,927).

4. In regard to claim 2, Lundell et al. disclose a keypad assembly having:

- A main circuit board (115) (col. 3, lines 1-2), light emitting diodes (LEDs) (105, 503) coupled to the main circuit board (115);
- A lightguides (109, 200) (col. 2, lines 67-68 & col. 4, lines 38-42) coupled to the main circuit board (115);
- The lightguides (109, 200) have window protrusions (103) formed therein for accommodating the LEDs (105, 503);
- A keypad board (501) coupled to the lightguides (109, 200) and having (Fig. 5) openings that align with the window protrusions of the lightguides (109, 200); and
- A keypad membrane (507, 509) coupled to the keypad board (501).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 1, 7-10 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lundell et al. (US 5,401,927) in view of Novak et al. (US 4,636,593).

7. In regard to the claims, Lundell et al. disclose a keypad assembly having:

- A main circuit board (115) (col. 3, lines 1-2) for light emitting diodes (LEDs) (105, 503) and a keypad board (501);
- A lightguides (109, 200) (col. 2, lines 67-68 & col. 4, lines 38-42) sandwiched (Fig. 5) between the main circuit board (115) and keypad board (501);
- The lightguides (109, 200) have window protrusions (103) to accommodate the LEDs (105, 503);
- The keypad board (501) has (Fig. 5) openings within which the window protrusions fit in order to provide lighting;
- Electronic components (205, 207) are disposed on the main circuit board (115) and accommodated (Figs. 2, 5) by in recesses formed in the lightguide (109, 200);
- A keypad members (507, 509) coupled to the keypad board (501); and
- The main circuit board (115) is a printed circuit board (col. 3, lines 1-2).

8. Lundell et al. do not expressly disclose that the keypad assembly includes a sealing means and an adhesive layer. Novak et al. disclose a keypad apparatus having (col. 3, lines 45-48) a compressible sealing means (310) or an adhesive layer (col. 1, lines 14-21). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use one of the sealing means taught by Novak et al. for the keypad assembly of Lundell et al., for the purpose of protecting the electrical

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components of the device from the surrounding environmental hazards, such as dust or moisture.

9. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lundell et al. (US 5,401,927) and Novak et al. (US 4,636,593), as applied to claim 1 above, and further in view of Kuhfus (US 4,349,705).

10. In regard to the claim 11, Lundell et al. disclose the invention substantially as claimed except that the keypad member is not translucent. Kuhfus discloses a keypad system having a keypad member (22) that is (col. 3, lines 3-5) a translucent. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the translucent keypad member as shown in Kuhfus for the keypad assembly of

Allowable Subject Matter

11. Claims 14-21 are allowed.

12. Claims 3-6 and 12 are objected as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form **incorporating all** of the limitations of the **base and intervening** claims.

13. Claim 3, 12 and 14 are allowable because the prior art fails to show or teach a keypad assembly having light emitting diodes (LEDs), a main circuit board, a lightguide and a keypad board, wherein the LEDs are coupled on to the main circuit, the lightguide includes window protrusions that accommodate the LEDs, the keypad board comprise openings that align with the window protrusions of the light guide,

- (claim 12) the keypad assembly includes a sealing means, and the keypad board is a printed circuit board (pcb); or
- (claim 3) the lightguide includes a track within which the main circuit board is retained and about which an o-ring is coupled; or
- (claim 14) the lightguide includes an aperture to accommodate a connector that is coupled to the main circuit board and recesses for other electronic components.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Loheac (US 4,710,597), Demeo (US 5,138,119), Kuzma (US 5,130,897), Knutson et al. (US 5,265,274), Kaschke (US 5,555,550) and Chaillie (US 6,621,446) show keypad systems having light sources.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gunyoung T. Lee whose telephone number is (571) 272-8588. The examiner can normally be reached between 7:30 - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra L. O'Shea can be reached at (571) 272-2378. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

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Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GTL

1/24/2007



RENEE LUEBKE
PRIMARY EXAMINER